IN THE CLAIMS

The amended claims are as follows:

33. (Previously Presented) A method including:

detecting ventricular heart contractions over a time period;

detecting atrial heart contractions over the time period;

if any ventricular heart contraction is not preceded by a corresponding atrial contraction, then deeming that ventricular heart contraction a premature ventricular contraction (PVC);

replacing the PVC with a substitute R-wave at that time which the R-wave would have occurred had the PVC not occurred;

obtaining a time-domain first signal representing time intervals between the detected ventricular heart contractions, wherein the detected ventricular heart contractions include any substitute R-waves generated as a result of a PVC;

filtering the first signal to obtain a time-domain second signal including frequency components substantially in a first frequency band, wherein the second signal is influenced by both sympathetic and parasympathetic components of an autonomic nervous system;

filtering the first signal to obtain a time-domain third signal including frequency components substantially in a second frequency band, wherein the third signal is influenced by the parasympathetic component of the autonomic nervous system and not substantially influenced by the sympathetic component of the autonomic nervous system;

obtaining a time domain variance of each of the second and third signals; and

providing an indication associated with a balance between the sympathetic and parasympathetic components of the autonomic nervous system based on a ratio between the time-domain variances of the second and third signals.

34. (Previously Presented) The method of claim **33**, in which the replacing the PVC with a substitute R-wave includes interpolating a time of the substitute R-wave from a most recent nonectopic ventricular contraction and an earliest subsequent nonectopic ventricular contraction.

35. (Previously Presented) The method of claim **33**, in which the replacing the PVC with a substitute R-wave includes computing a time of the substitute R-wave using a moving average.

36. (Previously Presented) The method of claim **33**, in which the replacing the PVC with a substitute R-wave includes using a spline to compute a time of the substitute R-wave.

37. (Previously Presented) The method of claim **33**, in which the replacing the PVC with a substitute R-wave includes using a median to compute a time of the substitute R-wave.

38. (Previously Presented) The method of claim **33**, in which the replacing the PVC with a substitute R-wave includes using a number of RR intervals before the PVC to compute a time of the substitute R-wave.

39. (Previously Presented) The method of claim **33**, in which the replacing the PVC with a substitute R-wave includes using a number of RR intervals after the PVC to compute a time of the substitute R-wave.

40. (Currently Amended) The method of claim **33**, wherein obtaining the variance comprises ~~further including~~:

squaring each of the second and third signals; and

lowpass filtering each squared second and third signals.

41. (Previously Presented) The method of claim **33**, further including lowpass filtering the ratioed variance of the second and third signals.

42. (Previously Presented) The method of claim **33**, in which providing an indication associated with an autonomic nervous system includes extracting a signal feature of the ratioed variance of the second and third signals.

43. (Previously Presented) A method including:

detecting heart contractions over a time period;

obtaining a time-domain first signal representing time intervals between the detected heart contractions;

filtering the first signal to obtain a time-domain second signal including frequency components substantially in a first frequency band, wherein the second signal is influenced by both sympathetic and parasympathetic components of an autonomic nervous system;

filtering the first signal to obtain a time-domain third signal including frequency components substantially in a second frequency band, wherein the third signal is influenced by the parasympathetic component of the autonomic nervous system and not substantially influenced by the sympathetic component of the autonomic nervous system;

obtaining a time domain variance of each of the second and third signals;

providing a balance indication associated with a balance between the sympathetic and parasympathetic components of the autonomic nervous system based on a ratio between the time-domain variances of the second and third signals; and

automatically adjusting a therapy at least in part by using the balance indication to control the adjusting.

44. (Previously Presented) The method of claim **43**, in which the adjusting the therapy includes using a present value of the balance indication.

45. (Previously Presented) The method of claim **43**, in which the adjusting the therapy includes using a delayed value of the balance indication.

46. (Previously Presented) The method of claim **43**, in which the adjusting the therapy includes selecting at least one therapy parameter value so as to increase a value of the balance indication.

47. (Previously Presented) The method of claim **43**, in which the adjusting the therapy includes selecting at least one therapy parameter value so as to decrease a value of the balance indication.

48. (Previously Presented) The method of claim **43**, in which the balance indication is an LF/HF signal, and in which adjusting the therapy includes delivering a preventative antitachyarrhythmia therapy when a value of the balance indication exceeds a threshold value.

49. (Previously Presented) The method of claim **43,** in which the adjusting the therapy includes using the balance indication to control the adjusting in real-time.

50. (Previously Presented) A method including:

detecting heart contractions over a time period;

obtaining a time-domain first signal representing time intervals between the detected heart contractions;

filtering the first signal to obtain a time-domain second signal including frequency components substantially in a first frequency band, wherein the second signal is influenced by both sympathetic and parasympathetic components of an autonomic nervous system;

filtering the first signal to obtain a time-domain third signal including frequency components substantially in a second frequency band, wherein the third signal is influenced by the parasympathetic component of the autonomic nervous system and not substantially influenced by the sympathetic component of the autonomic nervous system;

obtaining a time domain variance of each of the second and third signals; and

providing an indication associated with a balance between the sympathetic and parasympathetic components of the autonomic nervous system based on a ratio between the

time-domain variances of the second and third signals during a period of time that is deemed to correspond to a resting state.

51. (Previously Presented) The method of claim **50**, in which during the period of time an interval between adjacent heart contractions generally exceeds a long-term average value.

52. (Previously Presented) The method of claim **51**, in which the period of time includes a first interval that extends forward from a first time corresponding to a maximum interval between adjacent heart contractions to a second time when the interval between adjacent heart contractions first drops back to the long-term average value.

53. (Previously Presented) The method of claim **52**, in which the period of time includes a second interval that extends backward in time from a third time corresponding to a maximum interval between adjacent heart contractions to a fourth time that is not more than a fixed time amount earlier than the third time.

54. (Previously Presented) The method of claim **51**, in which the period of time includes a second interval that extends backward in time from a first time corresponding to a maximum interval between adjacent heart contractions to a second time that is not more than a fixed time amount earlier than the first time.